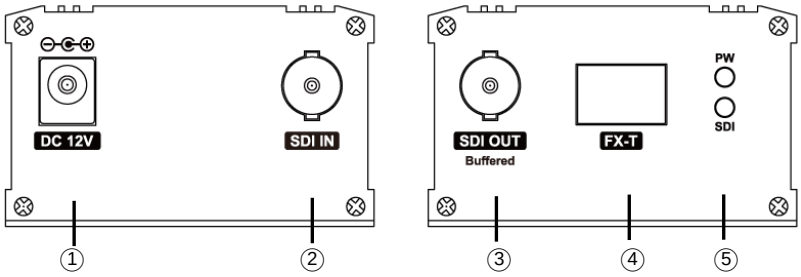
3G/HD/SD-SDI TO OPTICAL FIBER CONVERTER
USER MANUAL

MODEL: 15-SF101-10K / 15-SF101-30K

1. Key Features

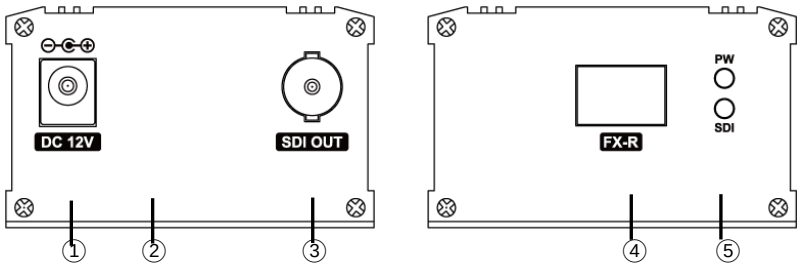
- **Built-in a SM fiber module that the HD-SDI could be transmitted between DVR side and camera over one fiber cable.**
- **Supports high-definition HD-SDI digital video at 720p60, 1080i60 and 1080p30 formats at all frame rates.**
- **Supports HD-SDI signals data rates up to 3G-SDI video.**
- **Passes embedded audio, ancillary ID, metadata information.**
- **Automatic input equalization improves signal transmission distances.**
- **Automatically adapts to SMPTE, ITU and DVB ASI digital video standard formats.**

2. Panel View



15-SF101T

①. POWER IN,
②. HD-SDI INPUT
③. HD-SDI OUTNPUT (BUFFERED LOOP OUT)
④. OPTICAL FIBER PLUG IN
⑤. POWER ON, HD-SDI SIGNAL LOCKED LEDs



15-SF101R

①. POWER IN,
②. HD-SDI OUTPUT
③. OPTICAL FIBER PLUG IN
④. POWER ON, HD-SDI SIGNAL LOCKED LEDs

3. Caution for Installation

3.1 Be careful; never let any water in this equipment.
3.2 If necessary, use a soft cloth moistened with alcohol to wipe off the dust.
3.3 Be extra careful not to shake the unit.
3.4 Avoid places where temperatures exceed 50℃ or higher.
3.5 Avoid places where there are frequent vibrations or shocks. When any abnormalities occur, make sure to unplug the unit and contact your local dealer.

4. Cable Installation

4.1 The coaxial cable is not squeezed at any position and the maximum bending radius defined by the cable manufacturer should be considered.

4.2 Bending creates pressure on the center conductor, causing it to move through the dielectric toward the inside of the bend. It would be caused to the impedance matching and return loss (signal reflection) problems, then reduces the maximum possible cable length and signal quality and reliability.

4.3 Avoid any BNC - adapter or any connectors in the BNC cable. Looping HD-SDI signals by BNC T-connectors to other devices is not possible.

5. Packing

5.1 3G-SDI to Fiber Transmitter ×1
5.2 3G-SDI to Fiber Receiver ×1
5.3 User Manual ×1
5.4 Screws ×4
5.5 Plastic-Conical-Anchor ×4
5.6 Power Adaptor ×2 [Option]

6. Specification

MODEL	**15-SF101-10K** **15-SF101-30K**	
	15-SF101T	**15-SF101R**
SDI		
Signal Formats	SD-SDI,HD-SDI, and 3G-SDI digital component video	
Input Data Rata	270Mbps /1.485Gbps / 2.97Gbps	
Min. Input Level	0.5Vp-p	
Max. Input Level	1.2Vp-p	
Output Level	0.8Vp-p typical	
Distance	**■1.485Gbps:** 170 m (550') using RG6 cable 120 m (400') using RG59 cable **■2.970Gbps:** 100 m (330') using RG6 cable 70 m (230') using RG59 cable	
Auto data rate detection	Yes	
Impedance	75Ω	
Input Connector	BNC × 1	N/A
Output Connector	BNC × 1	
Indicators		
Red LED	Power On	
Green LED	HD-SDI Locked	
Power		
Input Voltage	12 VDC	
Input Current	<120 mA @ 12 VDC	< 90 mA @ 12 VDC
Input Connector	DC-JACK OD:2.0mm	
Optical		
Module COP Part Number	34009110T1(15-SF101-10K)	3400961001
	34009130T1(15-SF101-30K)	
Module Connector	SFP-type	
Type	Single-mode(SM)	
Fiber Connector	LC	
Wavelength	1310nm	1260 to 1620 nm
TX Power	0 to -5 dBm	N/A
RX Sensitivity	N/A	0 to -20 dBm
Mechanical & Environmental		
Weight	< 175g (6.17 oz)	< 170g (6.00 oz)
Dimensions (W × L × H)	61 × 116 × 37 mm (2.40” × 4.57” × 1.45”)	
Operation Temperature	-10°C ~ 50°C	
Storage Temperature	-30°C ~ 85°C	

7. Connection Diagram

Model \ Rate	3 Gbs	1.5 Gbs
15-SF101-10K	10 km	20 km
15-SF101-30K	30 km	30 km